

ABSTRACT OF THE INVENTION

A photoresist-free and ARC-free lip on the periphery of the upper surface of a semiconductor substrate adjacent the end edge of the substrate is formed by the steps of: forming an ARC layer on one surface of a semiconductor substrate; chemically treating the ARC layer to chemically terminate the ARC layer a first distance from the end edge of the substrate; forming a photoresist layer over the semiconductor substrate and over the ARC layer thereon; and exposing the peripheral portion of the photoresist layer to UV light followed by development of the exposed peripheral portion of the photoresist layer to photolithographically terminate the photoresist layer a second distance from the end edge of the substrate wherein the second distance is smaller than the first distance.

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